

## What is Heart Failure?

A diagnosis of heart failure sounds scary, as if your heart could stop at any moment. But the underlying heart conditions that commonly cause heart failure, such as coronary artery disease or high blood pressure, typically develop slowly, over many years. The development of heart failure usually means that your heart's ability to pump blood has weakened, so it can't circulate enough blood to meet your body's needs. Shortness of breath, fatigue, and leg swelling may result. When fluid builds up, heart failure is called congestive. Sometimes, the heart becomes too stiff to fill properly, and that also can lead to heart failure.

About five million Americans are living with heart failure, and between 400,000 and 700,000 new cases are diagnosed every year. Heart failure is serious and can be life-threatening. About 250,000 people die annually of heart failure.

Although in some cases, there's no way to reverse damage to the heart, treatments can significantly improve the signs and symptoms. You can also make lifestyle changes, such as exercising, reducing salt intake, and losing weight, to help your weakened heart work as efficiently as possible.

Your best defense against heart failure is to prevent or control risk factors that lead to coronary artery disease, such as high blood pressure, high cholesterol levels, diabetes, alcohol abuse, inactivity, and obesity.

Doctors sometimes can correct heart failure by treating the underlying cause. For example, controlling a fast heart rhythm may reverse heart failure. But, in most cases, once you have heart failure, it's there to stay. However, with treatment, a failing heart can become stronger and signs and symptoms of heart failure can improve. Doctors usually treat heart failure with medications. Several types of drugs have proved useful in the treatment of heart failure, and are often used together.

**They include: Digoxin, ACE Inhibitors, Angiotensin II Receptor Blockers, Diuretics, Beta-blockers, and Aldosterone Receptor Blockers.**

## For Follow-up Visit: What to Expect?

1. Review of daily medications and side effect: bring your list of medications.
2. Check of body weight.
3. Be prepared for a blood draw.

## Resources

AHA American Heart Association  
[www.americanheart.org](http://www.americanheart.org)  
1-800-242-8721

ACC American College of Cardiology  
[www.acc.org](http://www.acc.org)  
1-800-253-4636

Heart Failure Society of America  
[www.aboutCHF.org](http://www.aboutCHF.org)  
1-651-642-1633

## Notes and Appointments




understanding  
**HEART  
FAILURE**  
treatment



(Name of drug)



(Name of drug)



(Name of drug)

**Digoxin**, also called digitalis, is a medication that increases the force of the heart's contractions. It helps an injured or weakened heart to work efficiently by strengthening the force of the heart muscle's contractions and helping restore a normal, steady heart rhythm. This helps to improve blood circulation. Most people continue taking digoxin even after they feel well, to keep the heart working effectively.

**The most common side effects:** heart rhythm disturbances. Other side effects include abdominal pain, nausea, vomiting, loss of appetite, breast enlargement, skin rash, blurred vision, and mental changes

**Angiotensin II Receptor Blockers (ARBs)**, like ACE Inhibitors, also interfere with angiotensin, a natural substance produced in the body, which causes blood vessels to constrict, and raising blood pressure. ARBs work in a different way, by preventing the action of angiotensin on blood vessels. This results in lower blood pressure, an increase in blood flow, and a decrease in the amount of work the heart has to do. They also block some of the harmful responses of the endocrine system that may occur with heart failure.

**The most common side effects:** cough, elevated potassium levels, low blood pressure, dizziness, headache, drowsiness, diarrhea, abnormal taste sensation (metallic or salty taste), and rash. Compared to ACE inhibitors, cough occurs less often with ARBs.

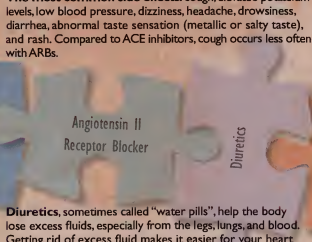
**Beta-blockers** block beta-receptors located on the cells that make up the heart, reducing the effects of chemical messengers that increase heart rate. This helps the heart to beat slower, more steadily, and more efficiently. They improve the heart's ability to relax and also decrease the production of harmful substances produced by the body in response to heart failure. Over time, beta-blockers improve the heart's pumping ability.

**The most common side effects:** Beta-blockers are generally well tolerated, side effects are mild and transient. Rare side effects include abdominal cramps, diarrhea, constipation, fatigue, insomnia, nausea, depression, dreaming, memory loss, fever, impotence, lightheadedness, slow heart rate, low blood pressure, cold extremities, sore throat, and shortness of breath or wheezing.



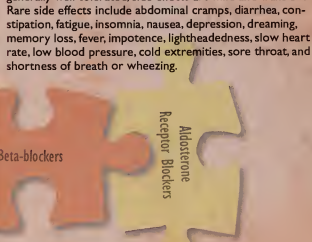
Digoxin

ACE Inhibitors



Angiotensin II  
Receptor Blocker

Diuretics



Beta-blockers

Aldosterone  
Receptor Blockers

**ACE Inhibitors** are a class of medication called vasodilators; they cause the blood vessels to widen. Angiotensin-Converting Enzyme (ACE) inhibitors prevent the body from making angiotensin, a natural substance produced in the body that causes blood vessels to constrict, raising blood pressure. Inhibiting angiotensin production results in lower blood pressure, an increase in blood flow, and a decrease in the amount of work the heart has to do.

**The most common side effects:** cough, elevated blood potassium levels, low blood pressure, dizziness, headache, drowsiness, weakness, abnormal taste (metallic or salty taste), and rash. It may take up to a month for coughing to subside, and if one ACE inhibitor causes cough it is likely that the others will too.

**Diuretics**, sometimes called "water pills", help the body lose excess fluids, especially from the legs, lungs, and blood. Getting rid of excess fluid makes it easier for your heart to pump since there is less fluid to pump, throughout the body. It also helps make breathing easier.

**The most common side effects:** Diuretics can cause potassium loss from the body. It is advisable to eat foods or drink liquids high in potassium such as citrus juice, bananas, melons, raisins and dates. Use of salt substitutes also help prevent potassium loss. Sometimes potassium supplement medication may be prescribed by your doctor. Inform your doctor if you develop: breathing difficulty, easy bruising or bleeding, swollen hands or feet, excessive thirst, muscle cramps, yellowing of the eyes or skin, sore throat.

**Aldosterone Receptor Blockers** act like diuretics, by blocking the body's response to the hormone aldosterone. Aldosterone promotes the retention of sodium, the loss of magnesium and potassium, blood vessel damage and other heart damage. These medications are effective in treating both the underlying causes of heart failure and its symptoms.

**The most common side effects:** Enlargement of the breasts (gynecomastia) is a not infrequent side effect. Rare side effects include diarrhea, cramps, drowsiness, rash, impotence, irregular menstrual periods, and irregular hair growth.



ACE Inhibitors

(Name of drug)



Diuretics

(Name of drug)



Aldosterone  
receptor blockers

(Name of drug)